# What To Do With The Sub-Normal Child

The Seventh
of a Series of Monographs
on the Improvement of
the Human Plant

HENRY SMITH WILLIAMS, M. D., LL. D.
Editor

ISSUED BY
THE LUTHER BURBANK SOCIETY
SANTA ROSA, CALIFORNIA

COPYRIGHT 1914, BY LUTHER BURBANK PRESS

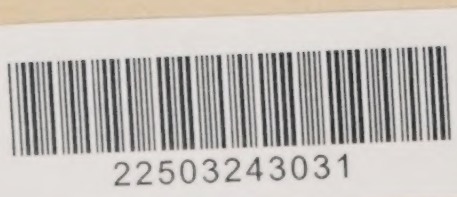
# FOREWORD

Heredity is more of a factor in human life than in plant life — more of a menace — more of a hope.

And nothing in the world of living things responds so quickly to new environments as the human mind — child and adult.

The great value of Luther Burbank's work lies in blazing the path of the application of the forces of heredity and environment to the improvement of the human plant — to the production of better races, better nations, better communities, better families, better individuals.

Having completed the classification of Mr. Burbank's Records as applied to plant life, The Luther Burbank Society now proceeds to the larger task of interpreting the forces of heredity and environment toward the betterment of the human plant through a series of monographs, the titles of which are given on the last page, the seventh of the series appearing herewith.


22503243031

# WHAT TO DO WITH THE SUB-NORMAL CHILD

IN THE preceding monograph, which dealt with the normal child, a definition was given of normality. The substance of that definition was that, for our present purpose, a child may be regarded as normal which has hereditary tendencies that harmonize it to an average degree, physically, mentally, and morally with the average or normal environment of civilization.

It follows, obviously enough, that we shall regard the subnormal child as one that lacks the hereditary equipment giving it such average harmony with its environment. It will appear presently, however, that we are not to confine attention exclusively to hereditary defects. Many a child of perfectly good heredity is distinctly subnormal at five or six years of age because of defects in its infantile and childhood environment.

Moreover, many a child suffers in its mental development through physical defects, hereditary or acquired that are easily, remediable. Such remediable conditions will naturally, be given full consideration in the present monograph.

The word subnormal in its widest implications would of course include all types of defective children, including the out and out imbecile. But in the present case we shall not interpret the word quite so liberally. We are concerned chiefly with the child that differs but little from the normal; in particular with the child that is normal in many respects, but which has the misfortune to be subnormal as to one trait or another which handicaps it seriously in competition with the altogether normal child.

Congenital imbecility is, fortunately, a relatively rare phenomenon. In the aggregate, to be sure, there are many thousands of imbeciles in the community, but they constitute, after all, only a handful in comparison with the vast coteries of slightly subnormal children. Congenital imbecility, is with rare exception, due to heredity. We have had occasion to refer to its causation in earlier monographs of this series. We have seen that feeble-mindedness is to be regarded as a recessive trait, which is likely to reappear in about one in four of the progeny when two persons both of

whom have this strain in their heredity are mated.

We have emphasized the dangers of the mating of persons who thus have strains of mental defect in their heredity. When such matings have, unfortunately, occurred, and one or more of the progeny show the pronounced or profound mental defect that is implied by the word imbecile, an injury has been done that is beyond repair. The low grade imbecile has a cerebral mechanism that is not susceptible of development. No amount of training will bring the subject to the normal plane. The only proper place for this unfortunate being is an institution particularly devoted to the care of like unfortunates. Home training is not only futile, but it is very urgently to be deprecated because of the unwholesome influence on other children of the family and on the community. The low grade imbecile should always be sent to an institution, and segregated there permanently.

But the case of the child who is but slightly defective or subnormal, or who is defective only as to some particular quality while fairly normal as to other qualities, is altogether different. This child pre-eminently needs the home training. Instead of being segregated, it should be brought as much as possible in contact with normal children. Under the right educational stimulus, in the home and in the school, it may be so developed that it

approximates normality, and is competent to live in a normal environment as a useful citizen.

But to bring about so desirable a denouement requires the exercise of exceptional judgment, untiring patience, and devoted attention on the part of both parents and teachers. In many cases, it requires also the co-operation of the physician. Indeed, as we shall see, there are cases without number in which this constitutes the most important part of the treatment of the subnormal child.

### Physical Handicaps

In every community there are numerous children who suffer injuries received at birth. Such injuries, involving the brain, may utterly vitiate the finest hereditary possibilities. The rupture of a tiny artery at the base of the brain, for example, may lead to a permanent bodily paralysis, to a spastic condition of various groups of muscles, involving distortion of the limbs; or to an ineradicable mental deficiency.

As to the treatment of such conditions, it is obvious that no general rules can be given. This is a task for the physician, indeed for the specialist; and he should be early consulted, and the child put under his constant supervision.

It may not be amiss, however, to say a few words about the possible prevention of such a lamentable misadventure. In another connection,

the present writer has had occasion to advocate the establishment of small lying-in hospitals everywhere in the community, to the end that all women brought to child-bed may have skillful and proper treatment, which, at the present time, a majority of the women in the average community are denied. The interests of the mother are a chief consideration in this propaganda. But it is obvious that the interests of the child are of almost equal importance.

When the time comes that the average woman in child-birth is given the attention that is her just due, not only will the ordeal of women in labor be minimized, but there will result also a great diminution in the number of children who suffer permanently from injuries received at birth. Injuries due to this cause can never be altogether avoided, of course. But they at least may be minimized, and it is believed that the establishment of lying-in hospitals everywhere will be instrumental in leading to this much to be desired result.

Such congenital injuries aside, there are numerous complications in the early history of the average child any one of which may lead to permanent injury of its brain and nervous system. These may perhaps be summarized under two general headings: (1) Defects of nutrition, and (2) brain injury due to defects in the organs of special sense.

Defects of nutrition menace the child from birth, and, it may be added, continue more or less of a menace throughout life.

An inherent weakness of the digestive apparatus, for example, constitutes a severe handicap to tens of thousands of children. Such cases, of course, require exceptional attention as to dietary. What was said in the preceding monograph about training the child to eat normal foods in normal quantity applies here with double force. If a way can be found to induce the digestive apparatus to care for ordinary foods in normal quantity, that will be infinitely better than the alternative solution of finding special and exceptional foods that the digestive apparatus can manage.

Within recent years medical science has made gigantic strides in the study of the digestive ferments; and in particular a knowledge has been gained as to the importance of certain of the internal bodily secretions that hitherto have been quite mysterious. Experiments have shown, for example, that by feeding tadpoles with thymus glands these creatures grow to unusual size without undergoing the ordinary metamorphosis into the frog stage. On the other hand, when the tadpoles are fed with thyroid glands, they remained dwarfed, but rapidly undergo transformation into pigmy frogs.

It has been found also that a secretion of the duodenum, called secretin, has an extraordinary effect in stimulating the production of digestive ferments, and in increasing the numbers of the white and red blood corpuscles, thus facilitating assimilation.

These new facts are now being utilized in medicine. Without doubt this new type of medication will redound greatly to the benefit of the child whose subnormality is contingent largely on malnutrition.

Again the physicians of the present day have a far clearer appreciation of the evils that result from bad teeth, leading to insufficient mastication of food, and to enlarged tonsils and the presence of adenoids than our immediate predecessors had.

By proper attention to these abnormal conditions, profound errors of nutrition are often remedied, and the child of subnormal physique restored to physical and mental normality.

**Injuries Caused By Errors of Refraction**

There is another source of injury from which tens of thousands of children suffer, however, that is not so generally recognized by the profession. I refer to the injuries of multiform character that may result from eye-strain due to errors of refraction through which the child has an ab-

normality of vision.

It is desirable to deal with this aspect of the subject at some length, for there are few physical defects that have more far-reaching consequences, or that involve the interests of a larger number of persons.

To begin at the beginning, you should understand that abnormal conditions of the eye are peculiarly likely to be inherited. The very common condition that leads to shortsightedness is partially due to a thinness or a lack of toughness of fiber of the structure of the eyeball itself. The muscles tugging constantly at the eyeball, particularly in focusing on nearby objects, exert such a constricting force as gradually to lengthen the eyeball, making it more or less egg-shaped; the result being that the rays of light are focused in front of the retina. Thus it becomes necessary to bring objects very near to the eye in order to see them closely, and the strain incident to focusing at close range aggravates the difficulty, so that shortsightedness is likely to be progressive.

The condition of the eyeball that leads to this result is likely to be transmitted to the offspring.

So if either parent of a child is nearsighted, the eyes of the child should be given careful attention. The condition of nearsightedness will probably not develop until the child is six or eight

years old; but the probability of its development should be borne in mind from infancy, and efforts made to obviate this unfortunate result.

To that end, the child should be given large objects to play with, even in the nursery. It should have its letters taught by forming them with blocks of wood, rather than by the use of a book. Even the scanning of picture books should be discouraged, and in general the child should be prevented from scrutinizing habitually small objects of any kind. It should not be permitted, for example, to draw pictures, to sew, or to thread beads, or to engage in any other occupation or diversion that necessitates near vision.

Dr. Ernest Clark, the London specialist, urges that no child having the hereditary tendency to short-sightedness should be allowed to learn to write or draw until it is at least seven years old.

**Small Defects Of the Eye Are Most Dangerous**

Above all it is important to realize that even slight error, necessitating a constant eye-strain, may lead to most disastrous results. Indeed, it is the rather paradoxical fact that small errors of refraction are the ones most likely to cause eye-strain with its attendant evils. If the refractive error is large the eye does not try to overcome it, but if it is slight there is constant straining, usually unknown to the child himself, and the wear and

tear, not only on the eye itself, but on the brain centers is almost sure to produce permanent injury. This may take the form of inflammation of the eyes, leading perhaps to granular lids or even to incurable maladies of the interior of the eye, such as inflammation of the iris, increase of the fluid contents of the eyeball, or the condition called cataract.

In other cases the symptoms may not focalize on the eye, but there may be severe neuralgia, convulsive movements of the facial muscles, attacks of dizziness and nausea, or even the convulsive seizures of epilepsy, without the real cause being suspected. Short of such tangible manifestations of nerve exhaustion, there may be a steady nerve waste that leads to perpetual brain fatigue with attendant irritability, lack of power of concentration, failure of memory, and insomnia leading to depression and even to mental overthrow.

Says Dr. Clark: "Insomnia is a prominent symptom of eye-strain; this leads to depression which in turn may lead to the alcohol or morphine habit. There is no form of functional nerve disorder that may not be caused, or aggravated by eye-strain."

Dr. Gould goes farther. Not limiting the view to functional disorders, he names curvature of the spine among common conditions due to eye-strain,

the bodily distortion resulting, he says "from the effort to focus defective eyes on books at school and the home under improper conditions as to desks and light."

"As to the millions of common school children," he says, "their ocular ills, their eye-strain, and its effect upon general health, their standing in classes, the reasons for the dullards and truants, and even juvenile criminals — of all this big book of human ills and wrongs, we are now at the opening page." And he adds: "Not one good school desk exists in the United States, and every child writes with body and head and eyes in disease-producing postures."

"Not one good school desk in the United States!" Yet fifteen or twenty million children are forced to sit at school desks "in disease-producing postures." A dreadful indictment of our educational system. Possibly it overstates the facts; but it is too near the truth to make pleasant reading.

In a word then, it is impossible to exaggerate the dangers that attend the eye-strain that may be due to a very slight error of refraction.

And the danger is peculiarly subtle because the child is quite unaware of the difficulty. It may even happen that astigmatism due to asymmetry of the cornea is corrected by such action of

the ciliary muscle as will change the shape of the crystalline lens in a way to correct the distortion of the image and thereby give perfectly good vision.

But the correction is made at the expense of incessant eye-strain, which cannot fail to make its effects manifest sooner or later. In such case it is impossible to detect the abnormality unless the ciliary muscles are paralyzed momentarily by a drug like atropin. But the interests of the child demand that the error should be detected and corrected by the proper glasses.

In case the eye suffers from astigmatism, and in those other cases in which the two eyes have different errors of accommodation, it is peculiarly necessary that there should be complete correction of the errors, and that the correcting glasses should be worn at all times. It is possible thus to give normal vision and to remove eye-strain, obviating the danger of incurable eye maladies or permanent perversions of the nervous system.

But it is best of all to train the child from infancy to use the eyes in such a way as to preserve them in a normal condition, and thus to spare him the inconvenience of the lifelong wearing of glasses.

Any child that tends constantly to scrutinize its work with eyes close to the page should at

once have its eyes examined, that its incipient shortsightedness may be corrected.

But for that matter every child should have its eyes examined by a competent occulist from time to time, just as it should have its teeth examined by a dentist. Indeed, of the two preventive measures, the former is by far the more important.

As illustrating the extent to which the physical disabilities just referred to handicap children in general, we may cite the observations of Dr. S. Josephine Barker, director of Child's Hygiene in the New York schools, who states that among the school children of the metropolis "there are sixty thousand cases of defective and untreated eye sight, sixty-five thousand cases of defective nasal breathing, eighty-two thousand enlarged tonsils, and four-hundred thousand young mouths that harbor diseased teeth."

It would be hard to estimate the amount of brain wear, exhaustion, and actual perversion resulting in the aggregate from these defects; but we can scarcely doubt that there is a close causal relation between the defects here noted and the fact revealed by Dr. H. H. Goddard's observation of the extraordinary number of atypicial children — from the standpoint of mentality — in the New York schools.

## New Drugs That Aid

Until recently very little had been known of drugs that have a directly stimulating effect on the tissues of the brain, and hence have utility in aiding development of the subnormal child. But some very interesting tests have been made by Drs. Dana and Berkeley, in which a drug made from a small glandular structure, known as the pineal body, located in the brain, has been utilized in the attempt to stimulate the mental activities of defective children.

The organ from which the drug is made is taken from the brain of a young bullock. The drug has been administered to a series of defective children, including a number at the school for defectives at Vineland, New Jersey. The results have been very gratifying.

The children to whom the drug has been given have advanced mentally more rapidly than their companions who were untreated.

There seems reason to hope that this method of medication is efficacious in stimulating the mental growth of subnormal children. If the tests already made should be successfully repeated, the use of a drug made from the pineal body will probably become routine treatment in all cases of mental subnormality.

Meantime of course we must not forget that

the old fashioned remedy of exercise in the open air, in the interests of general physical development, has perennial value.

Personally I would regard it of much greater importance, that the subnormal child should lead a life in the open air, exercising under skillful guidance in such a way as to develop its physique, than that it should have specific school tasks, until, let us say, its tenth year.

I do not mean to imply by this, however, that the child should have no mental training until such an age. On the contrary I regard it as of the utmost importance that its systematic mental training should begin from earliest infancy. But let a clear destinction be drawn between mental training in the wide sense in which the word is here used and schooling or book training in the narrower sense.

### Mental Training

The training to which I now refer is that which comes through precept and example, rather than through the following of set tasks. It is the all-important training that must be given by the parents, who should make an unceasing effort to mold the mind of the subnormal child toward the model set by the average mind of the average child — the only normal standard.

Let me urge again that with the subnormal child, even as with the normal one, this effort can-

not be commenced too early. In infancy the web for the woof of mind begins to be woven, and what is then done cannot altogether be undone.

I could point you instances where a child of three years has had planted on its brain the tendency to depraved habits of activity that have been the bane of the life of the individual as long as he lived. And it is beyond question that the mind of every child is similarly stamped with many a tendency that tells for good or evil all its life, during those earlier years when it is commonly supposed to be hardly a conscious personality.

In its capacity to take on the wrong kind of training, the subnormal child may be even more receptive than the normal one. Even a seemingly dull child has an eye that drinks in every sight, an ear that nurtures every sound, and a mind that develops ideas and interpretations long before its tongue can give word to its verdict.

Conscious memory does not carry the adult back to that period, but beyond the depths of memory, the indelible record is there, and the man of fifty owes his personality in no small measure to the influences that surrounded his cradle. The warp of heredity and the woof of early training remain to the end the foundation structures of every mind, however much the texture may be frayed, the colors obscured or blended, by later experiences.

And I repeat that the subnormal child may be quite as susceptible to such influences as the normal one. Indeed, subnormality as to the inherent capacity for higher mental or moral development may very well be associated with exceptional keenness of the organs of special sense. Subnormality is, generally speaking, an atavistic condition, and our barbaric ancestors were more keen-eyed and sharp-eared than their civilized descendants.

Not infrequently it happens that the subnormal child is precocious in some directions, while very backward in others. It may, for example, have an excellent memory and good capacity in learning to read and write; to memorize geographical names and the like; and yet be quite incapable, seemingly, of clearly conceiving the notion that two and two inevitably make four.

In such case, it becomes peculiarly difficult to secure for the child the right kind of schooling. Until recently, teachers have for the most part had scant understanding of comprehension of the mind of the atypical child. In thousands of cases, school life has been made a burden and torture to children of this type, because their teachers failed to comprehend that their "dullness" as regards one study or another was due to an inherent mental defect.

Of late, however, educators are awakening to

the true psychology of these cases, and special classes are being provided for the atypical child in our best public schools. In New York City, for example, there are several hundred such classes, with many thousand pupils, under the general supervision of a director who has made special studies of the abnormal child and has shown exceptional ingenuity in devising methods for the education of children of this type.

The classes for the atypical children are conducted in connection with the regular school classes, in adjoining rooms, so that the atypical children may use the same play grounds with the normal ones, and in general may have the fact of abnormality minimized instead of emphasized both in their own estimate and in the estimate of their normal companions.

In a word, the directors of these schools for atypical children are endeavoring to direct the minds of their charges into normal cannels, and to make them approximate as nearly as may be to normal standards.

In due course such special classes as these will be established in connection with all our public schools, and the life of the subnormal child will be made less irksome than it has been in the past. Not only so, but thousands of children who have gone utterly wrong in the past because of the bad

educational methods, to which they were subjected, will be redeemed in part, and their successors spared a like fate, through application of the new method which recognizes the fact that not all minds are cast in a single mold, and that a child that is bright in some directions may be inexpressably dull in others, not through lack of interest, but because of hereditary defect of brain tissues.

### Restraining the Ego

As regards moral training, the subnormal child is likely to present peculiar difficulties to the parents and the educators.

Such a child is almost certain to be unduly selfish and egotistic. At the same time it will lack the capacity for such persistency of application as leads to true volitional strength.

The parents of the child must restrain and control its emotions, and on no account deceive themselves by supposing, as so many parents do, that outbursts of stubborn temper are evidence of "willpower." In point of fact, they show an opposite state. It is the weak will that attempts to bolster itself with bluster and bombast.

The difficulties encountered by the parent and educator become peculiarly onerous in the case of the subnormal child which, in addition to its egoism and stubborness, shows brilliancy of pre-

cocity in certain directions that may seem to justify its egotism.

There could be no greater mistake than to foster and stimulate the precocity of such a child. It should be known that these traits are the earmarks of the temperament, which if allowed to develop, will lead its victim to that mental state known as paranoia or monomania.

The parent and the teacher who have to do with a sensitive, self-centered, stubborn, erratic child that shows brilliancy in some lines of study and deficiency in others, should bear this danger constantly in mind.

**Choosing a Vocation For the Subnormal Child**

It is obvious that the final test of your success in dealing with the subnormal child must be found in the capacity of the child to go out into the world, when it has attained mature years, and to take its place as a normal member of society.

This clearly implies that the child shall have had such training as will fit it to earn its living at useful employment. Granted that the inherent defects of the child's mentality were not too pronounced, the training should have made it capable of doing this. It may even be capable of attaining brilliant success in some chosen field; but only in case the choice has been wisely made of some vocation that is within its special capacities.

It may not be amiss to point out that what we now have to say as to the choice of a vocation applies to the average normal individual almost as directly and significantly as to the subnormal one. The latter is, indeed, less able to ward off the ill effects of undue stress of living; so it is of course peculiarly desirable to shield individuals of this kind against the worriment incident to failure in a chosen calling. But even the most normal individual cannot escape the effects of worriment; and there is perhaps no single cause of anxiety and mental distress that is so prevalent, or applies to so large a number of persons, as the choice of a vocation to which the individual was not naturally fitted.

It is claimed, indeed, by many psychiatrists that a very large number of nervous break-downs in this hurrying age are due to precisely this cause. And the prominent reason is that the young men and women of our time very generally select their vocations haphazard and without reference of their fitness or unfitness for the tasks. Thus there are numbers of misfits — square pegs in round holes, as the saying is.

As a consequence work is performed badly and inefficiently, while the workers themselves suffer undue strain in attempting to keep pace with other workers who are inherently better

adapted for that particular task.

Take by way of illustration a specific case cited by a prominent modern student of efficiency in business, Mr. Harrington Emerson. "The type for the great newspaper," he says, "is set up by linotype operators. Apprenticeship is rigorously limited. Some operators can never get beyond the 2500-em class, others with no more personal effort can set 5000-ems. Do the employers test out applications for apprenticeship so as to be sure to secure boys who will develop into the 5000-em class? They do not; they select applicants for any near reason except for the fundamental important one of innate fitness."

It is obvious that under these conditions a good share of the workers will be in the 2500-em class, and that these all their lives will be subject to undue strain in attempting to compete with their 5000-em co-workers.

And this specific case is typical of what applies in a thousand other lines of work, both mechanical and mental.

Mr. Emerson believes that the difficulty might be met by providing that young men and women to enter any given trade or profession should be selected by competent specialists who have "supplemented natural gifts and good judgment by analysis and synthesis that enable them to per-

ceive aptitudes and proclivities even in the very young, much more readily in those semi-matured, and can with almost infallible certainty point out, not only what work can be undertaken with fair hope of success, but also what slight modification or addition and diminution will more than double the personal power."

### The Psychologist To the Rescue

But Professor Hugo Münsterberg, the Harvard psychologist, very much doubts the availability of any such intuitional power as this. He would pin his faith rather to the methods of laboratory, and would attempt to substitute the results of scientific investigation for what he terms mere guesswork. In illustrating what may be done in this direction, Professor Münsterberg cites various interesting cases.

He tells, for example, how Mr. S. A. Thompson applied the method of the psychological laboratory to testing the workers in a bicycle factory where 120 girls were inspecting the balls. The results of the test were so remarkable that they may well be given in detail. The case is peculiarly interesting because the work involved was of so simple a character that it might almost be thought that one person of average intelligence could do it as well as another.

The task was this: The girls had to place a row

of small polished steel balls on the back of the left hand, and while they were rolling over and over in the crease between two of the fingers placed together, they were minutely examined in a strong light, and the defective balls were picked out by the aid of a magnet held in the right hand.

A simple enough task, even though requiring close attention and concentration. But now note what Professor Münsterberg says:

"The girls were working ten and a half hours a day. Mr. Thompson soon recognized that the quality most needed, beside endurance and industry, was a quick power of perception accompanied by quick responsive action. He knew that the psychological laboratory has developed methods for a very exact measurement of the time needed to react on an impression with the quickest possible movement; it is called the reaction-time, and is usually measured in thousandths of a second. He, therefore, considered it advisable to measure the reaction-time of the girls, and to eliminate from service all those who showed a relatively long time between the stimulus and reaction."

The test resulted, we are told, that many of the most intelligent, hardest-working, and most trustworthy girls were not naturally fitted for the task.

When these misfits were eliminated, it was

found possible to shorten the hours and reduce more and more the number of workers, with the final outcome that *thirty-five girls did the work formerly done by a hundred and twenty,* and that the accuracy of the work at the higher speed was two-thirds greater than at the former very low pace.

"This allowed almost a doubling of the wages of the girls in spite of their shorter work-day, and at the same time a considerable reduction in the cost of the work for the factory."

**From Laboratory to Work**

Such a result is surely stimulative. And there is no reason to suppose this an exceptional case. But the work is only begun.

Professor Münsterberg, however, has been led to take the matter up in his laboratories, in the endeavor to develop tests that might be of practical value in selecting applicants for various lines of work.

It should be explained that the delicate apparatus of the psychological laboratory enables the experimenter to test such important matters as the reaction-time of any given brain to a given stimulus, the time required by the brain cells of a given individual to make a selective judgment, and the like; and that different brains differ very materially as to these important and fundamental reactions.

It is obvious that there are many lines of work in which quick reaction-time is one of the most important elements for the development of efficiency, just as in the case just cited.

But it is seldom possible without careful analysis to determine just what the elements are in any given case. In Professor Münsterberg's words, "The subtler *nuances* of difference between tasks can be gained only by an intimate knowledge of the industry." And he gives this very striking illustration:

"In the case of a well-known type-setting machine, thousands of which are in daily use, I had the impression that the rapidity of the performance was dependent upon the quickness of the finger reaction. The managers, on the other hand, have found that the most essential condition for speed in the whole work is the ability to retain a large number of words in the memory before they are set. The man who presses the keys rather slowly advances more rapidly than another who moves his fingers quickly, but must make many pauses in order to find his place in the manuscript and to provide himself with new words."

Commenting on this case, Professor Münsterberg analyzes the factors that must be brought into correlation if we are to enable the individual to make a wise selection of a vocation. We must consider, he says, "first the actual experience of

managers; secondly, the observations of skilled psychologists in the industrial concerns; thirdly, psychological and experimental investigations with successful and unsuccessful laborers; and, fourthly, experimental studies of the normal variability."

He points out that if such a programme is to be realized in detail, it will be necessary to discriminate between inherited traits and those that are acquired.

Each individual must be studied as to his "capacities of attention and emotion, memory and will energy, disposition to fatigue and to restoration, imagination, suggestibility and intiative, and many other features."

### Practical Tests That You Can Apply

A good deal of this will be doubtless carried out in the schools of the not distant future. In the meantime, you may personally apply practical tests on yourself and your children that will be of the utmost value, even though you have scant knowledge of psychology.

You can at least give careful heed to the inherent traits and capacities of your children as revealed in their every-day conduct. Teach them nervous control — control over their emotions, their passions, their egoistic desires. This will be far more important than anything they will learn at school.

And in aiding them to select vocations, when the time comes for that, consider their traits of mentality, their innate capacities, rather than your own predilections, and be governed accordingly.

Remember that the square peg in the round hole is at best a slipshod contrivance. "Better a good artisan than a poor artist" is a very wholesome motto.

These admonitions as to the choice as to a profession, apply, as I have said, to youth in general, regardless of their normality. For few individuals indeed are so versatile that they can select their vocations at random, with fair assurance of success. But they apply with peculiar force to the subnormal individual, because a maladjustment of the facilities, is as a rule, the basis of his subnormality or atypicality.

So I would urge every parent who has to do with a subnormal child to consider very carefully, from the outset, the inherent capacities of the child with reference to the ultimate choice of a vocation. I would not so much urge that the child be trained for a particular vocation, as that the vocation for which it is trained should be carefully selected with reference to the child's inherent tastes, inclinations, and capacities. The weal or woe of the future years of the subnormal child will be largely contingent on the wisdom or unwisdom of your choice.

## Human Life Improvement Series

### TITLES OF MONOGRAPHS

now in course of preparation by
The Luther Burbank Society
to be issued Monthly.

1. Seven Ambitious Brothers—and How They Bred a Race of Kings.
2. The Laws of Heredity—Their Definite Meaning and Interpretation.
3. The Power of Environment—Nurture versus Nature.
4. Eugenics, Euthenics and Love—How They Go Hand in Hand.
5. Choosing Our Children.
6. Bringing Up the Normal Child.
7. What To Do With the Sub-normal Child.
8. Mental Obliquities—How Caused and How Remedied.
9. Heredity and The Criminal—Is There a Criminal Type?
10. Adding Years to Our Lives Through Environment.
11. Better Brains for the Race—Some Practical Observations on Mental Hygiene.
12. America—The Racial Melting Pot.

*These monographs are not for sale. They are issued for distribution to members of The Luther Burbank Society, and to others only on recommendation of members*

WELLCOME
LIBRARY
P
13625